The following listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) An excimer or molecular fluorine laser, comprising:

a discharge chamber filled with a gas mixture including molecular fluorine;

a plurality of electrodes within the discharge chamber connected to a pulsed discharge circuit for energizing the gas mixture; [[and]]

two resonator reflector surfaces disposed on opposite sides of the discharge chamber; and

a line-narrowing module adjacent to one of the resonator reflector surfaces, wherein the discharge chamber, resonator reflector surfaces, and line-narrowing module form a resonator for generating a laser beam ~~including a pair of resonator reflector surfaces, the discharge chamber and a line-narrowing module,~~;

wherein the line-narrowing module includes[[:]],

a beam expander ~~including~~ disposed in a path of the laser beam and having one or more optical elements for expanding the beam and reducing a divergence of the beam; [[and]]

a reflection grating disposed in the path of the laser beam;

~~coupled with~~ a heat sink in thermal contact with the reflection grating; and

means for tuning a wavelength of the laser beam output by the line-narrowing module~~, said grating for receiving the expanded beam and dispersing the beam to reduce a bandwidth of the beam that remains within an acceptance angle of the resonator upon dispersion by the grating , said heat sink for removing heat caused by beam absorption~~.

2. (currently amended) The laser of Claim 1, further comprising one or more interferometric devices disposed in the path of the laser beam for further improving a spectral purity of the beam.

3. (original) The laser of Claim 2, wherein at least one of the one or more interferometric devices is rotatable for tuning the wavelength output by the line-narrowing module.

4. (original) The laser of Claim 1, wherein the beam expander includes one or more prisms.

5. (original) The laser of Claim 4, wherein at least one of the one or more prisms is rotatable for tuning the wavelength output by the line-narrowing module.

6. (original) The laser of Claim 4, wherein at least two of the prisms are synchronously rotatable for tuning the wavelength output by the line narrowing module, and for mutually compensating a re-directing of the beam path produced by rotation of said prisms.

7. (currently amended) The laser of Claim 1, further comprising a sealed enclosure around one or more optical elements of the line-narrowing module and a processor including means for monitoring the wavelength of the beam, wherein the sealed enclosure is separate from any other enclosure used to exclude photoabsorbing species and contaminants from the beam path, and wherein the sealed enclosure includes an inert gas inlet for filling the enclosure with an inert gas, the processor further including means for controlling the pressure of the inert gas within the sealed enclosure for tuning the wavelength output by the line-narrowing module.

8. (currently amended) The laser of Claim 7, wherein the sealed enclosure further includes an outlet for flowing an inert gas through said sealed enclosure.

9. (currently amended) The laser of any of Claims 7 or 8, wherein the grating is within the sealed enclosure.

10. (currently amended) The laser of Claim 9, wherein the beam expander includes one or more elements disposed within the sealed enclosure.

11. (original) The laser of Claim 9, wherein the line-narrowing module further includes one or more interferometric devices.

12. (currently amended) The laser of claim 11, wherein at least one of the one or more interferometric devices is within the sealed enclosure.

13. (currently amended) The laser of any of Claims 7 or 8, wherein the line-narrowing module further includes one or more interferometric devices within the sealed enclosure.

14. (currently amended) The laser of any of Claims 7 or 8, wherein the line-narrowing module further includes one or more elements of the beam expander within the sealed enclosure.

15. (currently amended) An excimer or molecular fluorine laser, comprising:

a discharge chamber filled with a gas mixture including molecular fluorine;

a plurality of electrodes within the discharge chamber connected to a pulsed discharge circuit for energizing the gas mixture; [[and]]

two resonator reflector surfaces disposed on opposite sides of the discharge chamber;

a line-narrowing module adjacent to one of the resonator reflector surfaces, wherein the line-narrowing module includes one or more optical elements, and wherein the discharge chamber, resonator reflector surfaces, and line-narrowing module form a resonator for generating a laser beam ~~including a pair of resonator reflector surfaces, the discharge chamber and a line-narrowing module including one or more optical elements for reducing the bandwidth of the beam,~~;

a sealed enclosure around one or more optical elements of the line-narrowing module and including an inert gas inlet and means for filling the sealed enclosure with an inert gas, wherein the sealed enclosure is separate from any other enclosure used to exclude photoabsorbing species and contaminants from the beam path; and

a processor including means for monitoring the wavelength of the beam, ~~and wherein the sealed enclosure includes an inert gas inlet for filling the enclosure with an inert gas,~~ the processor further including means for controlling the pressure of the inert gas within the sealed enclosure for tuning the wavelength output by the line-narrowing module.

16. (currently amended) The laser of Claim 15, wherein the sealed enclosure further includes an outlet for flowing an inert gas through said sealed enclosure.

17. (currently amended) The laser of any of Claims 15 or 16, wherein the line-narrowing module includes:

a beam expander disposed in a path of the laser beam and including said one or more optical ~~elements for expanding the beam and reducing a divergence of the beam~~; and

a reflection grating disposed in the path of the laser beam ~~for receiving the expanded beam and dispersing the beam to reduce a bandwidth of the beam that remains within an acceptance angle of the resonator upon dispersion by the grating~~.

18. (currently amended) The laser of Claim 17, wherein the grating is within the sealed enclosure.

19. (currently amended) The laser of Claim 18, wherein at least one of the one or more optical elements of the beam expander is also within the sealed enclosure.

20. (currently amended) The laser of Claim 18, wherein the line-narrowing module further includes one or more interferometric devices within the sealed enclosure.

21. (currently amended) The laser of Claim 17, wherein the line-narrowing module further includes one or more interferometric devices within the sealed enclosure.

22. (currently amended) The laser of Claim 16, wherein the processor controls the pressure within the sealed enclosure by controlling a rate of flow of said inert gas.

23. (currently amended) The laser of any of Claims 1, 15 or 16, further comprising an output coupling interferometer disposed in the path of the laser beam and including at least one curved inner surface such that a gap spacing between said curved surface and an opposing inner surface varies over a cross section of the ~~interferoemter~~ interferometer ~~for further improving a spectral purity of the beam~~.

24. (original) The laser of Claim 23, wherein said opposing inner surface is a substantially flat surface.

25. (original) The laser of Claim 23, wherein said opposing inner surface is curved surface, wherein said two inner surfaces having opposing curvatures.

26. (original) The laser of Claim 23, wherein said laser is an ArF laser emitting at a wavelength of 193 nm.

[[26]] 27. (currently amended) The laser of any of Claims 1, 15 or 16, further comprising an etalon output coupler ~~for further improving a spectral purity of the beam~~ disposed in the path of the laser beam.

[[27]] 28. (currently amended) The laser of any of Claims 1, 15 or 16, wherein the laser is a molecular fluorine laser emitting around 157 nm.

[[28]] 29. (currently amended) The laser of any of Claims 1, 15 or 16, wherein the laser is an ArF laser emitting around 193 nm.

[[29]] 30. (currently amended) The laser of any of Claims 1, 15 or 16, wherein the laser is a KrF laser emitting around 248 nm.

[[30]] 31. (currently amended) The laser of Claim 1, wherein the line-narrowing module further includes an interferometric device disposed in front of the grating after the beam expander.

[[31]] 32. (currently amended) The laser of Claim 17, wherein the line-narrowing module further includes an interferometric device disposed in front of the grating after the beam expander.

[[32]] 33. (currently amended) An excimer ~~of~~ or molecular fluorine laser, comprising:

a discharge chamber filled with a gas mixture including molecular fluorine and a buffer gas;

a plurality of electrodes within the discharge chamber connected to a pulsed discharge circuit for energizing the gas mixture at a repetition rate of more than 2 kHz; and

two resonator reflector surfaces disposed on opposite sides of the discharge chamber;

a line-narrowing module adjacent to one of the resonator reflector surfaces, wherein the discharge chamber, resonator reflector surfaces, and line-narrowing module form a resonator for generating a laser beam ~~including a pair of resonator reflector surfaces, the discharge chamber and~~

wherein the [[a]] line-narrowing module ~~including~~ includes a beam expander, an interferometric device and a grating each disposed in a path of the laser beam for reducing the bandwidth of the beam to less than 0.5 pm,

wherein the beam expander comprises optics ~~formed~~ composed of a material that is thermally stable ~~material~~ at DUV wavelengths and below and at said repetition rate of more than 2 kHz, wherein said interferometric device comprises a pair of plates ~~formed~~ composed of said same thermally stable material, and wherein the grating is thermally and mechanically stabilized within the line-narrowing module.

[[33]] 34. (currently amended) The laser of Claim [[32]] 33, wherein said thermally stable material of said optics of said beam expander and of said plates of said interferometric device is selected from the group of materials consisting of CaF_2, MgF_2, LiF and BaF_2.

[[34]] 35. (currently amended) The laser of Claim [[32]] 33, wherein said thermally stable material of said optics of said beam expander and of said plates of said interferometric device is CaF_2.

[[35]] 36. (currently amended) The laser of Claim [[32]] 33, wherein said thermally stable material of said optics of said beam expander and of said plates of said interferometric device is MgF_2.

[[36]] 37. (currently amended) An excimer or molecular fluorine laser, comprising:

a discharge chamber filled with a gas mixture including molecular fluorine;

a plurality of electrodes within the discharge chamber connected to a pulsed discharge circuit for energizing the gas mixture; [[and]]

two resonator reflector surfaces disposed on opposite sides of the discharge chamber; and

a line-narrowing module adjacent to one of the resonator reflector surfaces, wherein the discharge chamber, resonator reflector surfaces, and line-narrowing module form a resonator for generating a laser beam ~~including a pair of resonator reflector surfaces, the discharge chamber and a~~ ;

wherein the line-narrowing module ~~including~~ includes a beam expander, an interferometric device and a grating, each disposed in the path of the laser beam, ~~for reducing~~ and wherein the line-narrowing module reduces the bandwidth of the beam,

wherein the interferometric device is disposed ~~before~~ between the grating [[after]] and the beam expander.

[[37]] 38. (currently amended) The laser of Claim [[36]] 37, wherein the beam expander includes a plurality of prisms each disposed between the interferometric device and the discharge chamber.

[[38]] 39. (currently amended) The laser of Claim [[36]] 37, wherein the beam expander includes at least three prisms each disposed between the interferometric device and the discharge chamber.

[[39]] 40. (currently amended) The laser of any of Claims [[34-36]] 37-39, wherein the laser is a KrF laser emitting around 248 nm.

[[40]] 41. (currently amended) An excimer or molecular fluorine laser, comprising:

a discharge chamber filled with a gas mixture including molecular fluorine;

a plurality of electrodes within the discharge chamber connected to a pulsed discharge circuit for energizing the gas mixture;

two resonator reflector surfaces disposed on opposite sides of the discharge chamber;

a line-narrowing module adjacent to one of the resonator reflector surfaces and including one or more optical elements, wherein the discharge chamber, resonator reflector surfaces, and line-narrowing module form a resonator for generating a laser beam ~~including a pair of resonator reflector surfaces, the discharge chamber and a line-narrowing module~~;

a sealed enclosure around [[the]] one or more optical elements of the line-narrowing module, wherein the sealed enclosure includes an inert gas inlet for filling the sealed enclosure with an inert gas, and wherein the sealed enclosure is separate from any other enclosure used to exclude photoabsorbing species and contaminants from the beam path; and

a processor including means for monitoring the wavelength of the beam, ~~and wherein the sealed enclosure includes an inert gas inlet for filling the enclosure with an inert gas,~~ the processor further including means for controlling the pressure of the inert

gas within the sealed enclosure for tuning the wavelength output by the line-narrowing module,

wherein the line-narrowing module includes:

a beam expander disposed in a path of the laser beam and including one or more optical elements for expanding the beam and reducing a divergence of the beam; [[and]]

a reflection grating disposed in the path of the laser beam; and

~~coupled with~~ a heat sink in thermal contact with the reflection grating~~, said grating for receiving the expanded beam and dispersing the beam to reduce a bandwidth of the beam that remains within an acceptance angle of the resonator upon dispersion by the grating, said heat sink for removing heat caused by beam absorption~~.

[[41]] 42. (currently amended) The laser of Claim [[40]] 41, wherein the sealed enclosure further includes an outlet for flowing an inert gas through said sealed enclosure.

[[42]] 43. (currently amended) The laser of any of Claims 1 or [[37]] 41, wherein said grating is ~~fixable~~ fixably attached to said heat sink.